

Comparing effect administration calcium-vitamin D and metformin in regulating menstrual cycle in women with polycystic ovarian syndrome

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*Abstract

Background: Polycystic ovarian syndrome (PCOS) is one of the most prevalent endocrinological gynecologic disorders of reproductive aged women. Its complications contains various clinical symptoms including irregular menstruation, hirsutism, increasing risk of endometrial hyperplasia, diabetes II, neoplasia, and infertility.

Objective: This study aimed to compare the effect of two drugs metformin and calcium-D in regulating menstrual abnormalities.

Methods: This randomized single blind clinical trial was done in Kosar hospital in 2013. In this study, 60 reproductive aged women 20-40 ages with PCOS were selected according to Rotterdam criteria and randomly divided into two groups of 30 subjects. The first group was given daily a calcium-D tablet (1000 mg calcium, vitamin D 400 IU) and second group were given metformin tablet 500 mg 3 times per day for 6 months. At the end of study, ovarian sonography, change of mean interval menstrual cycles and level of blood testosterone were recorded. All data were analyzed with T-test and repeated Measures.

Findings: Mean menstrual cycle in the first and end of the study in the Ca-D and metformin groups were respectively 56.45 ± 33.35 and 53.71 ± 33.12 days that were not statistically significant. After treatment, the ovarian volume was decreased to 51% and 49% in the Ca-D and metformin groups respectively in sonography that there was no significant between them.

Conclusion: The findings demonstrated that administration of these two drugs were similar function in regulate the menstrual cycle and reduce the volume of the ovaries in women with PCOS.

Keywords: Polycystic ovary syndrome, Vitamin D, Calcium, Metformin

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